

CLAIMS

What is claimed is:

1. A fluid bin assembly comprising:

a bin having a floor with a side wall upstanding therefrom, the floor and the side wall bounding a chamber, the floor having an opening extending therethrough; and

a first retention plate removably mounted to the floor of the bin so as to at least partially cover the opening extending therethrough, the first retention plate at least partially bounding a porthole that openly communicates with the chamber of the bin.

2. A fluid bin assembly as recited in claim 1, wherein the side wall has an interior surface with a horizontal transverse cross section that is substantially square or rectangular.

3. A fluid bin assembly as recited in claim 1, further comprising a lid removably mounted to the side wall so as to substantially cover the chamber.

4. A fluid bin assembly as recited in claim 1, further comprising a plurality of vertically and horizontally spaced apart viewing slot extending through the side wall so as to communicate with the chamber.

5. A fluid bin assembly as recited in claim 1, wherein the chamber has a volume of at least 500 liters.

6. A fluid bin assembly as recited in claim 1, further comprising a plurality of legs downwardly projecting from the bin so as to suspend the floor off of a ground surface.

7. A fluid bin assembly as recited in claim 1, further comprising means for enabling the bin to be lifted by a forklift.

8. A fluid bin assembly as recited in claim 1, wherein the side wall comprises a front panel, a back panel, and a pair of opposing side panels extending therebetween.

9. A fluid bin assembly as recited in claim 8, wherein the side wall further comprises a leg disposed at the intersection of each of the panels.

10. A fluid bin assembly as recited in claim 8, wherein the front panel comprises:

a fixed panel at least partially bounding a doorway that communication with the chamber of the bin; and

a door movably mounted to the fixed panel, the door being selectively moveable being an open position wherein the doorway is at least partially open and a closed position wherein the doorway is closed.

11. A fluid bin assembly as recited in claim 10, wherein the door is hingedly mounted to the fixed panel.

12. A fluid bin assembly as recited in claim 10, wherein the door is slidably mounted to the fixed panel.

13. A fluid bin assembly as recited in claim 1, further comprising a dolly on which the bin is removably mounted, the dolly having wheels.

14. A fluid bin assembly as recited in claim 1, wherein the floor comprises a substantially flat base floor and a plurality of sloping floor sections that intersect with the base floor, the base floor at least partially bounding the opening.

15. A fluid bin assembly as recited in claim 1, wherein the first retention plate at least partially bounds a plurality of discrete portholes that communicate with the chamber.

16. A fluid bin assembly as recited in claim 1, wherein:

the floor has an inner edge at least partially bounding the opening, the inner edge having a first recess formed thereon; and

the first retention plate has a perimeter edge with a second recess formed thereon, the first recess and the second recess being aligned so as to form the porthole.

17. A fluid bin assembly as recited in claim 1, further comprising:
the first retention plate having a perimeter edge with a recess formed thereon; and

a second retention plate removably mounted to the floor of the bin, the second retention plate having a perimeter edge with a recess formed thereon, the recess of second retention plate being aligned with the recess of the first retention plate so as to bound porthole therebetween.

18. A fluid bin assembly as recited in claim 17, further comprising a plurality of portholes being bounded between the first retention plate and the second retention plate.

19. A fluid bin assembly as recited in claim 17, further comprising a third retention plate removably mounted to the floor of the bin, the third retention plate being mounted adjacent to the second retention plate, at least one porthole being bounded between the second retention plate and the third retention plate.

20. A fluid bin assembly as recited in claim 10, wherein the opening on the floor extends to the front panel and the doorway of the front panel extends to the floor such that the opening and the doorway are connected together.

21. A fluid bin assembly as recited in claim 10, wherein the fixed panel of the front panel comprises a lower section which extends between the floor and the

doorway, the lower section bounding a slot which communicates with the chamber of the bin, the slot extending between the doorway and the opening on the floor.

22. A fluid bin assembly as recited in claim 21, wherein the first retention plate is substantially L-shaped, the first retention plate being removably mounted to the floor so as to at least partially cover the opening on the floor and the slot extending between the doorway and the opening on the floor.

23. A fluid bin assembly as recited in claim 22, wherein at least a portion of the L-shaped retention plate is disposed between the door and the chamber when the door is in the closed position.

24. A fluid bin assembly as recited in claim 17, further comprising a plurality of retention plates, each of the plurality of retention plates being configured to be separately removably mounted to the floor of the bin so as to at least partially cover the opening extending therethrough, each of the plurality of retention plates at least partially bounding a porthole that openly communicates with the chamber of the bin when the corresponding retention plate is removably mounted to the floor of the bin, each porthole being a different size, a different configuration, or at a different location for each of the plurality of retention plates, the first retention plate being selected from the plurality of retention plates.

25. A fluid bin assembly as recited in claim 1, wherein the first retention bracket is removably mounted to a bottom surface of the floor.

26. A fluid bin assembly as recited in claim 25, further comprising a pair of spaced apart brackets mounted on the bottom surface of the floor on opposing sides of the opening extending through the floor, each bracket bound an elongated channel disposed between a portion of the bracket and the floor of the bin, a portion of the first retention plate being slide within the channel of each bracket so as to removably secure the first retention bracket to the floor.

27. A fluid bin assembly as recited in claim 1, further comprising a collapsible bag removably disposed within the chamber of the bin, the collapsible bag having a first port formed thereon, the first port being disposed within the porthole.

28. A fluid bin assembly as recited in claim 27, wherein the bag comprises a two-dimensional pillow type bag or a three-dimensional bag.

29. A fluid bin assembly as recited in claim 27, wherein the bag is comprised of a plurality of discrete panels seamed together.

30. A fluid bin assembly as recited in claim 27, wherein the bag has an exterior surface with a plurality of hanger mounts projecting therefrom.

31. A fluid bin assembly as recited in claim 27, wherein the bag has a top end face and an opposing bottom end face, the first port being formed on the bottom end face, the bag further comprising one or more ports formed on the top end face.

32. A fluid bin assembly as recited in claim 1, further comprising a bag hoist, the bag hoist comprising:

a stand removably mounted to the bin;

a support arm projecting from the stand so as to extend over the open chamber of the bin;

an elongated line slidably mounted on the support arm, the line having a first end and an opposing second end, the line being selectively movable on the support arm such that the first end can be selectively raised and lowered within the chamber of the bin;

a hanger mounted on the first end of the line; and

a plurality of connectors mounted to the hanger.

33. A fluid bin assembly comprising:

a bin having a floor with a side wall upstanding therefrom, the floor and the side wall bounding a chamber, the floor having an opening extending therethrough;

a collapsible bag removably disposed within the chamber of the bin, the collapsible bag having a port formed thereon, the port being disposed within the opening; and

bag hoist comprising:

a stand removably mounted to the bin;

a support arm projecting from the stand so as to extend over the open chamber of the bin in the form of a cantilever; and

an elongated line slidably mounted on the support arm, the line having a first end and an opposing second end, the line being selectively movable on the support arm such that the first end can be selectively raised and lowered within the chamber of the bin, the first end of the line being connected to the bag.

34. A fluid bin assembly as recited in claim 33, further comprising:

a plurality of hanger mounts secured on the bag;

a hanger mounted on the first end of the line; and

a plurality of connectors mounted to the hanger, each connector engaging a corresponding hanger mount.

35. A fluid bin assembly as recited in claim 33, further comprising:
a handle mounted to the second end of the line; and
a clasp mounted on the bin, the clasp being configured to secure the handle when the first end of the line is raised within the chamber.

36. A fluid bin assembly as recited in claim 33, wherein the opening comprises a porthole from on the floor of the bin.

37. A fluid bin assembly as recited in claim 33, further comprising a retention plate removably mounted to the floor of the bin so as to at least partially cover the opening extending therethrough, the retention plate at least partially bounding a porthole in which the port of the bag is disposed.

38. A fluid bin assembly as recited in claim 1, wherein the side wall has a top edge, a plurality retention tabs upwardly and outwardly project from the side wall so as to project beyond the top edge, at least some of the retention tabs having a hole extending therethrough.

39. A method comprising:

positioning a collapsible bag within the chamber of a bin, the bag having a port projecting therefrom;

positioning the port of the bag within an opening extending through a floor of the bin; and

mounting a select retention plate to the bin after the bag is within the chamber so that the select retention plate covers at least a portion of the opening extending through the floor of the bin, the select retention plate at least partially bounding a porthole which comprises a portion of the opening in the floor, the port being disposed within the porthole.

40. A method as recited in claim 39, further comprising mounting the select retention plate to the bin prior to positioning the port within the porthole.

41. A method as recited in claim 39, further comprising mounting a first retention plate to the bin prior to mounting the select retention plate, the porthole being bounded between the first retention plate and the select retention plate.

42. A method as recited in claim 39, wherein the act of mounting the select retention plate comprises choosing the select retention plate from a plurality of retention plates, each of the plurality of retention plates having a different configuration.

43. A method as recited in claim 39, further comprising passing a first end of a fluid line through the opening in the floor of the bin prior to mounting the select retention plate to the bin, the fluid line having a second end fluid coupled with the port of the bag.

44. A method as recited in claim 39, further comprising dispensing a fluid into the bag when the bag is disposed within the chamber of the bin.

45. A method as recited in claim 44, further comprising upwardly suspending the bag within the chamber of the bin while the fluid is dispensed into the bag.

46. A method as recited in claim 44, wherein the act of positioning the collapsible bag within the chamber of the bin comprises inserting the bag into the chamber through a doorway formed on a side wall of the bin, the doorway being selectively closed by a door.

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47. A method comprising:

positioning a bag assembly within a chamber of a bin, the bag assembly comprising a collapsible bag and a fluid line, the fluid line having a first end fluid coupled with the bag and an opposing second end;

passing the second end of the fluid line through an opening extending through a floor of the bin; and

mounting a select retention plate to the bin so that the select retention plate covers at least a portion of the opening extending through the floor of the bin, the select retention plate at least partially bounding a porthole which comprises a portion of the opening in the floor.

48. A method as recited in claim 47, further comprising mounting a first retention plate to the bin prior to mounting the select retention plate, the porthole being bounded between the first retention plate and the select retention plate.

49. A method as recited in claim 47, wherein the act of mounting the select retention plate comprises choosing the select retention plate from a plurality of retention plates, each of the plurality of retention plates having a different configuration.

50. A method as recited in claim 47, further comprising dispensing a fluid into the bag when the bag is disposed within the chamber of the bin.

51. A method as recited in claim 50, further comprising upwardly suspending the bag within the chamber of the bin while the fluid is dispensed into the bag.

52. A method as recited in claim 47, wherein the act of positioning the bag assembly within the chamber of the bin comprises inserting the bag assembly into the chamber through a doorway formed on a side wall of the bin, the doorway being selectively closed by a door.

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53. A method comprising:

positioning a collapsible bag of a bag assembly within a chamber of a bin, the bag assembly further comprising a fluid line having a first end fluid coupled with the bag and an opposing second end;

passing a section of the fluid line through a slot formed on the bin such that the second end of the fluid line is disposed outside of the chamber, the slot being in communication with the chamber of the bin and extending from a doorway formed on a side wall of the bin to a floor of the bin; and

mounting a retention plate to the bin so that the retention plate covers at least a portion of the slot.

54. A method as recited in claim 53, wherein the slot extends through a portion of the floor, the act of mounting the retention plate comprising mounting the retention plate to the floor.

55. A method as recited in claim 53, wherein the act of positioning the bag within the chamber of the bin comprises inserting the bag into the chamber through the doorway formed on the side wall of the bin, the doorway being selectively closed by a door.